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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,063	12/27/2001	Gerhard Niedermair	449122019600	1764
25227 7590 01/29/2007 MORRISON & FOERSTER LLP 1650 TYSONS BOULEVARD SUITE 300 MCLEAN, VA 22102			EXAMINER ARMSTRONG, ANGELA A	
			ART UNIT	PAPER NUMBER
			2626	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/29/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/019,063

Applicant(s)

NIEDERMAIR, GERHARD

Examiner

Angela A. Armstrong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. In response to the Office Action mailed August 1, 2006, applicant has filed a request for reconsideration on November 1, 2006. Currently claims 1-9 are pending and all claims stand rejected.

### ***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-4 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Junqua et al (US Patent No. 6,684,185) in view of Shaw (US 2002/0013707).

4. Regarding claim 1, Junqua discloses a method for speech processing comprising converting an orthographic input into a phonetic transcription in a first conversion step at col. 3, lines 38-57; a second step of converting from the phonetic transcription into a pseudo-orthographic representation and outputting in this representation at col. 4, lines 3-22 and 37-40; col. 5, lines 33-37. Additionally, Junqua discloses the second conversion comprises a conversion of phonetic word units into simple graphemic script units at col. 3, line 38 continuing to col. 4, line 37 and col. 7, lines 8-65. Junqua does not teach analyzing the output pseudo-orthographic representation to determine if the orthographic input was correctly converted. Shaw discloses a system for developing word pronunciation pairs for use in a speech recognition system, in which an editing tool is provided for developing word-pronunciation pairs based on a spelled word input. The editing tool includes a transcription

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generator that receives the spelled word input from the user and generates a list of suggested phonetic transcriptions. The editor displays the list of suggested phonetic transcriptions to the user and provides a mechanism for selecting the desired pronunciation from the list of suggested phonetic transcriptions.

It would have been obvious to one of ordinary skill at the time of the invention to modify the system of Junqua to display the transcriptions to the user to have the user select the desired pronunciation, for the purpose of ensuring that user specific words or phrases are transcribed to reflect the user's desired characteristics.

Regarding claim 2, Junqua discloses a third step of converting an input performed in the pseudo-orthographic representation into the phonetic transcription at col. 4, line 62 continuing to col. 5, line 32.

Regarding claim 3, Junqua discloses conversion of phonetic word units into simple grapheme script units at col. 3, line 38 continuing to col. 4, line 37.

Regarding claim 4, Junqua discloses conversion step executed by accessing a stored phoneme/grapheme assignment table at col. 7, lines 8-65.

Regarding claims 6-9, claims 6-9 are apparatus claims similar in scope and content to method claims 1-4 and therefore are rejected under similar rationale.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Junqua in view of Shaw and further in view of Molnar et al (US Patent 6,411,932).

6. Regarding claim 5, Junqua does not teach the implementation of a neural network as a machine-learning/ self-learning technique for obtaining phonetic information. However,

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implementation of a neural network technique to acquire phonetic information was well known in the art. Molnar teaches a learner technique using a neural network to form pronunciation guesses for words in a training set and for finding a transformation rule that improves the guesses (Figure 15, col. 5, lines 4-21) and specifically teaches the system can produce good pronunciations or transcriptions for word not in a training set (col. 5, lines 43-50).

It would have been obvious to one of ordinary skill at the time of the invention to modify the system of Junqua to implement a neural network in the phonetic transcription system, as suggested by Molnar, for the purpose of producing transcriptions or pronunciations of new words or words not a part of the original vocabulary or grammar, as also suggested by Molnar.

#### ***Response to Arguments***

7. Applicant's arguments have been fully considered but they are not persuasive. Applicant argues Junqua fails to disclose converting of an orthographic input into a phonetic transcription. The Examiner respectfully disagrees. Junqua at col. 3, lines 31-53 specifically teaches any suitable means can be used to input letters of a spelled word, including hardware devices such as keyboards or touchtone keypads may be used. Junqua also teaches that the phoneticizer converts the spelled word letters into one or more phonetic transcriptions.

Applicant also argues there is no disclosure of a second conversion of phonetic words into simple graphemic script units. The Examiner respectfully disagrees. Junqua, at col. 4, lines 3-37 and at Figure 3, element 126, specifically discloses a hybrid unit transcription module to process the N-best phonetic transcriptions to generate syllabic transcriptions.

***Conclusion***

**8. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

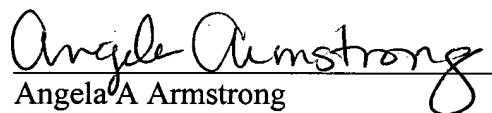
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

**9.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 571-272-7598. The examiner can normally be reached on Monday-Thursday 11:30-8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Angela A. Armstrong  
Primary Examiner  
Art Unit 2626

AAA  
January 24, 2006